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ABSTRACT

One aspect of a nationwide survey dealt with the extent to which the attribution theory might be used to help account for students' perceptions of their successes and failures at employer sites. The study involved 1,102 high school students enrolled in 18 experience-based career education programs in 16 states. Respondents indicated the degree to which various worksite factors contributed to an excellent or poor working experience. The six most highly rated reasons why certain job-site experiences resulted in excellent learning (success) were related to effort and skill. The six most highly rated reasons why experiences resulted in little or no learning (failure) were related to boring aspects of the tasks themselves. Students from some ethnic backgrounds rated easy and challenging tasks significantly differently than did those from others. Major differences among students were also found when considering grade point average and grade level. Results showed that some variables from previous attribution theory research--effort and ability--were found to be important as reasons given by students to explain success, but not failure, at employer sites and supported previous findings that different types of students have different attribution patterns. (YLB)

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YOUNG PEOPLES' ATTRIBUTIONS FOR SUCCESSFUL OR UNSUCCESSFUL LEARNING AT WORKSITES

by

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Supporters of youth participation projects and other programs involving young people in the community, such as Experience-Based Career Education, Cooperative Work Experience, and internship programs are concerned about how these community-based experiences can assist students in becoming responsible adults. Criteria for planning and designing such programs have been developed (Dollar, 1980) but inadequate attention has been given to how young people themselves view their learning experiences in community settings. This is not too surprising since we also know relatively little about the way in which students perceive their schools and their academic learning.

Previous research has established the role that attribution can play in helping to explain school achievement, particularly in elementary school children.

Weiner (1972) and others have attempted to analyze students' achievement-related behavior as determined by their individual causal perceptions of successes and failures. This research is based on carefully developed conceptualizations associated with attribution theory. Attribution refers to the inference that observers make about the causes of their own or another person's behavior.

Individuals have been shown to view the causes of their successes and failures as principally due to their ability, their effort, the difficulty of the task and/or to good or bad luck. In reviewing the literature on attribution theory, Bar-Tal (1978) identifies two main dimensions differentiating causal elements. One dimension involves locus of control while the other involves stability/instability. Ability and effort are considered internal causes while task difficulty and luck are

considered external. Ability and task difficulty are considered stable because they do not vary if the same task is repeated while effort and luck are considered unstable because they are likely to change over time. The same individuals more often select different attributes to explain success experiences than they do for failure experiences.

Bar-Tal has found that children high in achievement motivation attribute their successes to their ability and effort and their failures to lack of effort or external factors. Children with low achievement motivation tend to perceive themselves as low in ability and attribute their failure more to lack of ability and their success more to external factors. Bar-Tal states, "the evidence suggests that there is a possibility of maximizing achievement behavior by providing students with instructions and feedback that would encourage them to make internal attributions (ability and effort) for success and lack-of-effort attributions for failure." (p. 267). Training programs have been developed and found successful that establish realistic perceptions of self-ability in students and emphasize the importance of effort in achieving outcomes.

Rotter (1966) described locus of control as an attribute of personality in which individuals are distributed according to their degree of belief in their own control over events in their lives. Internals believe that events occur primarily as a result of their own behavior while externals think events that follow their behavior are determined primarily by outside forces such as luck or powerful others.

Aponik and Dembo (1981) investigated the causal attributions of learning-disabled and normal adolescents on success and failure

performances on three levels of task difficulty. They found that locus of control, by itself, was inadequate for explaining the differences in attribution ascribed by the two groups. The students' perceptions of the levels of task difficulty were a significant determinant of the resulting causal attribution.

In their study of ninth and eleventh grade Canadian students, Lokan and Boss (1977) found that students high on the internal end of the Nowicki-Strickland Locus of Control Scale scored significantly higher on the Career Development Inventory than did those who were externals. Thus, they conclude that internals tend to exhibit more mature vocational behavior than externals.

Although earlier studies of attribution theory have focused on only one or several dimensions, more recent research has broadened the scope of these attributes (Weiner, 1979). For example, Cooper and Burger use 17 categories, including previous experience, habits and attitudes (1978). In the present study, we have added to the traditionally researched attributions of effort, ability, luck and task difficulty the concept of challenging or boring tasks. This is based on our previous research indicating the importance of challenging tasks in worker satisfaction studies and as an essential characteristic in youth participation projects and other types of experiential learning programs.

Much of the experimental research has been conducted in laboratory settings. Bar-Tal (1978) points out that the next step in the development of the attributional model is "to carry out studies within real school situations with students of different ages." (266). The rest of this article describes the way attribution theory has been

applied to analyzing the experiences of senior high school students involved in learning projects at employer sites in their communities through Experience-Based Career Education Programs.

Over the past several years, the Education and Work Program staff at the Northwest Regional Educational Laboratory (NWREL) has conducted a nationwide survey research study designed to identify young peoples' perceptions about the job site characteristics that contribute or detract from quality learning in the workplace. A summary of these findings is reported elsewhere (Owens and Owen, 1982). One aspect of that study dealt with the extent to which attribution theory might be used to help account for students' perceptions of their successes and failures at employer sites. Key areas we addressed were:

- The extent to which various young people attribute their success or failure at particular worksites to their effort, ability, the difficulty level of the tasks, or to luck
- Whether the findings from attribution theory that are used to explain school achievement also hold up when applied to learning at employer sites
- The extent to which young peoples' attributions vary significantly by sex, grade level, ethnic background, and grade point average
- Ways that educators and employers can help young people recognize the influence they have over their own environment

EBCE

Students in Experience-Based Career Education (EBCE) programs throughout the country were selected to participate in this study.

EBCE was initially designed as an alternative program for a full range of high school students. The program integrates individual direct

learning experiences in the school and in the community. EBCE learning opportunities are geared to helping students in three key areas: career skills, life skills and basic skills.

Begun in 1971 and sponsored by the National Institute of Education, EBCE has been developed, demonstrated and evaluated through four regional educational laboratories: Appalachia Educational Laboratory, Far West Laboratory for Educational Research and Development, Northwest Regional Educational Laboratory and Research for Better Schools. Although each of the four models had distinctive features, all four shared certain goals related to helping students develop the knowledge and skills necessary for choosing, entering, advancing in and finding satisfaction in adult roles.

Since the initial development of EBCE, the program has been successfully adapted to many special populations, including adults seeking career redirection, the economically disadvantaged, gifted and talented students, junior high school youth, juvenile delinquents, migrants, and the handicapped. The 1979 national directory of EBCE programs, sponsored by the National EBCE Assocation, describes 190 programs in 48 states, the District of Columbia and Puerto Rico. In 1982 EBCE served over 20,000 students. It is being used in community colleges or other postsecondary education settings in 11 states.

Method

This study involved 1,102 high school students enrolled in 18 high fidelity EBCE programs in 16 states. The EBCE programs were selected to provide balance across the four laboratory models of EBCE as well as

geographic representation from each region of the country. Preference was also given to selecting some sites having a high minority enrollment. The population was 56 percent female and contained 65 percent white, 18 percent black, 11 percent Hispanic, 4 percent Native American and 1 percent Asian. Students reflected a normal distribution in grade point average. When analyzed by grade level, 46 percent were in the 12th grade, 38 percent in the 11th grade, 14 percent in the 10th grade and 1 percent in the 8th or 9th grade. Thirty percent of the students were in EBCE for their first semester and 70 percent had been enrolled for more than one semester. EBCE programs were selected for this study because (1) they would insure a good cross-section of American youth, (2) EBCE student activites at employer sites were known and documented and (3) EBCE students average career explorations at from four to eight employer sites each. Thus, each student was likely to have experienced and could be asked to describe characteristics of sites where both excellent and poor learning had occurred.

Using open-ended questions and rating scales based primarily on propositions derived from social learning theory, a questionnaire was designed, pilot tested and revised. The pilot instrument was administered to 218 students in eight EBCE programs covering five states. Based on information gained from that study (Owens and Owen, 1979) and from comments by a national review panel, the instrument was revised and expanded to include statements reflecting attribution theory. For a more detailed discussion of the instrument, methodology and findings, see Owen and Owens (1981).

Respondents indicated the degree to which various worksite factors contributed to an excellent or poor working experience. For each factor or possible reason listed, they were asked to circle a number from 1=Not Significant to 5=Extremely Significant.

Chi square analyses were used to determine differences between excellent and poor learning sites. Multiple discriminant analyses and analysis of variance were used to determine the significance of differences in responses by various subpopulations of students.

An additional series of items was posed for both the excellent and poor learning site experiences. Five items asked the students to rate the extent of their agreement with statements concerning their interaction with their employer/instructor. Open-ended items requested a description of the students' activities, what they learned and what happened at the site to make it the type of experience it was.

Among a list of 19 reasons that could possibly make a particular employer worksite an excellent learning opportunity for the student were five derived from attribution theory--"high effort by myself, my skill (ability) in getting along with people, luck in locating a good site, easy tasks and challenging tasks." Among a list of 20 reasons that could possibly cause a particular employer worksite to result in little or no new learning for the student were "little effort by me, my lack of skill (ability) in getting along with people, bad luck at the site, tasks were too difficult and boring tasks."

Since the jobs that students were exploring in the community ranged from immediate job entry level to high level professional or technical

jobs involving extensive training and experience, we chose to define ability in terms of skill in getting along with people rather than ability to do or understand the work involved. When considering the effects of the tasks involved we decided to focus on both the difficulty aspects of the task (easy/difficult) as well as the affective aspects (challenging/boring).

Findings

Based on the responses of all 1,103 students in the study, the six most highly rated reasons why certain job site experiences resulted in excellent learning were: (1) trying out the work myself, (2) high effort by myself, (3) my skill in getting along with people, (4) applying the learning to new things, (5) listening and talking with adults at the site, and (6) being given an adult responsibility.

Conversely, six most highly rated reasons why certain job site experiences resulted in little or no learning were: (1) boring tasks, (2) no opportunity to explore other areas of interest, (4) no opportunity to try out the work myself, (5) too much repetition of the activity and (6) didn't know what would be expected of me. Thus, in terms of successes, effort and skill were considered important causes while failures were attributed much more to the boring aspects of the tasks themselves.

Table 1 shows the relative importance of the five statements derived from attribution theory related to excellent learning while Table 2 shows the results related to little or no learning.

TABLE 1

STUDENT PERCEPTIONS OF THE SIGNIFICANCE OF REASONS WHY CERTAIN JOB SITE EXPERIENCES RESULTED IN EXCELLENT LEARNING

Reason	Rank Order*	Mean**	S.D.**
High effort by myself	2	4.31	.84
My skill in getting along with people	3	4.30	.87
Challenging tasks	10	3.96	.91
Luck in locating a good site	17	3.61	1.16
Easy tasks	19	2.80	1.23

* Rank order based on 19 reasons.

** Means and standard deviations are based on a five-point rating scale where students were asked how significant they felt each of these reasons was in "helping to make a particular community experience an excellent learning opportunity for you." (1=Not Significant to 5=Extremely Significant).

TABLE 2

STUDENT PERCEPTIONS OF THE SIGNIFICANCE OF REASONS WHY CERTAIN JOB SITE EXPERIENCES RESULTED IN LITTLE OR NO LEARNING

Reason	Rank Order*	Mean**	S.D.**
Boring tasks	1	3.60	1.36
Bad luck at the site	14	2.59	1.40
Little effort by me	17	2.42	1.35
My lack of skill in getting along with people	18	2.36	1.39
Tasks were too difficult	20	2.10	1.33

* Rank order based on 20 reasons.

** Means and standard deviations are based on a five-point rating scale where students were asked how significant they felt each of these reasons was in "causing a particular community experience to result in little or no learning for you." (1=Not Significant to 5=Extremely Significant).

Although it is useful to know the reasons why young people think they succeed or fail at particular employer sites, it is even more useful to understand how different categories of students respond. Such knowledge can help us better understand what factors are important to various youth. To answer this question we conducted multiple discriminant analyses, analysis of variance and Duncan multiple range tests to determine whether student responses on the five attribution statements differed significantly when analyzed by students' sex, ethnic background, grade level, and grade point average. A summary of the findings is shown in Table 3. As can be seen in Table 3, differences between males and females were statistically significant only in the case of "skill in getting along with people" as a perceived cause for success at job sites. The young women in this study rated this reason significantly higher than did the young men.

TABLE 3

AREAS OF SIGNIFICANT DIFFERENCE IN RATINGS
BY STUDENT CATEGORY

Reasons	Sex	Ethnicity	Grade Level	Grade Point Average
Success Attributes				
High effort			.05	.001*
Skill	.001			.001
Challenging tasks		.001	.05	.001
Easy tasks		.001	.01	.001
Luck			.01	.01
Failure Attributes				
Little effort		.001	.001	.001
Lack of skill		.001	.001	.001
Boring tasks		.01	.01	
Difficult tasks		.001	.001	.001
Bad luck		.01	.05	

*Level of significance of the univariate F ratio

Students from some ethnic backgrounds rated easy tasks and challenging tasks significantly differently than did those from other ethnic backgrounds. Blacks and Hispanics rated easy tasks significantly more important for contributing to learning at an employer site than did American Indians and Whites. Challenging tasks were rated significantly higher by Asians and somewhat higher by Hispanics and Whites than by Blacks. At sites judged to result in little or no learning, Hispanics and Blacks rated lack of skill as a more important factor than did American Indians or Whites.

Major differences among students were also found when considering young peoples' grade point average (GPA) and grade level. At successful

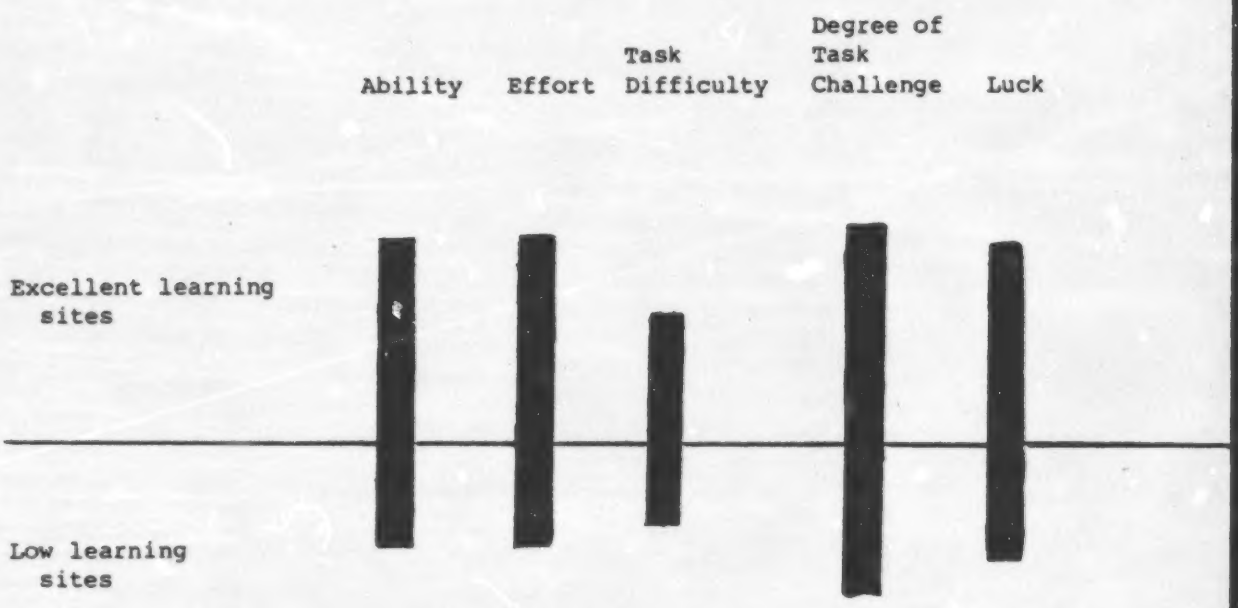
sites the high GPA students (operationally defined as those with a GPA of 3.0 or above versus those with a GPA of under 2.5) rated challenging tasks, ability and effort as significantly higher. Lower GPA students rated easy tasks and luck significantly higher than did high GPA students. At employer sites considered to result in little or no learning for the student, lower GPA students when compared to higher GPA students attributed the failure more to lack of effort, lack of skill and difficult tasks.

Responses were also analyzed by students' grade level--10th, 11th or 12th. At successful sites, 12th graders rated challenging tasks higher than did 11th graders. Tenth graders rated easy tasks, luck and effort higher than did 11th or 12th grade students. At sites where little or no learning was perceived to have occurred, 10th graders rated all five reasons higher than 11th or 12th graders and 11th graders rated lack of ability and boring tasks higher than did 12th graders.

Differences in importance of attribution factors in relation to job sites where excellent or little learning was perceived to occur are illustrated in Chart 1.

CHART 1

PERCEIVED IMPORTANCE OF COMPARISON OF ATTRIBUTION FACTORS INFLUENCING EXCELLENT AND LOW LEARNING JOB SITES



In comparing the correlation coefficients of these variables, correlations of .25 or higher were found between challenging tasks and high effort (.37); between easy tasks and good luck (.25); between ability in getting along with people and effort (.29); between bad luck and lack of ability (.33), little effort (.29), and difficult tasks (.30); and between lack of ability and little effort (.53) and difficult task (.47). It was interesting to find generally low correlations for the same attribute such as good luck in explaining success and bad luck in explaining failure.

Discussion and Implications

Some variables from previous attribution theory research such as effort and ability were found to be important as reasons given by students to explain success but not failure at employer sites. Luck and the difficulty level of tasks were low in explaining such outcomes. Variables such as the opportunity to try out the work, relationships with employers and fellow workers, being given adult responsiblities and challenging tasks were considered more important by high school students in this study. An important implication of this is that in designing career explorations, work study placements or community internships, educators need to build in provisions for ample hands-on activities that challenge young people. Likewise, we need to give them opportunities to develop responsibility and to form closer relationships with employers and fellow workers.

This field-based study supports the findings of previous laboratory and school-based studies that different types of students have different

attribution patterns. For example, in recruiting high achievement students, into these field-based programs, it would be especially important to stress the challenging job aspect while with other students it may be more appealing to discuss the opportunity to form friendships with participating employers who may eventually want to hire the student.

Research involving attribution theory indicates that people are more motivated to continue performing a task if they believe that their successes are due to their effort and ability and their failures due to lack of effort or external factors such as task difficulty. Educators working in these field-based programs can help students reflect on the attributes that will motivate them to continue succeeding in their learning.

Task difficulty was not perceived by students as a major factor in their success or failure at learning in community sites although it is often an important attribution in school-based learning. This suggests that the levels of task difficulty at sites used by EBCE and other programs are better selected to individual student differences. In fact, an individualized learning plan for two students at an identical employer site can be substantially different in terms of objectives and levels of task difficulty. This would respond to the differences in students' abilities and interests.

Students with a lower grade point average (GPA) in comparison with higher GPA students were found in this study to rate luck significantly higher as a reason for successful learning at employer sites. Previous research indicates that students can be helped to modify the reasons they attribute for success or failure. Project staff can help students realize that their successful learning at employer sites

was due less to luck than to other factors such as their effort. As students start to realize this, they can assume greater control over their environment and be more likely to initiate behaviors that will generalize to future successful learning at other employers sites and in other settings.

Although this study focused on students' attributions of success and failure in nonclassroom settings, it would be useful in future research to compare young peoples' attributions for success and failure in both classroom and nonclassroom settings.

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